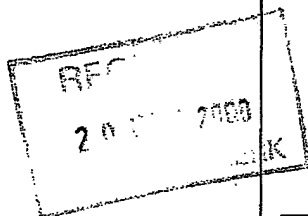


PATENT COOPERATION TREATY

From the:
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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MARKS & CLERK
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PCT

WRITTEN OPINION

(PCT Rule 66)

Date of mailing (day/month/year)		18.12.2000
Applicant's or agent's file reference DTP.P50978PC		REPLY DUE within 3 month(s) from the above date of mailing
International application No. PCT/GB00/00726	International filing date (day/month/year) 01/03/2000	Priority date (day/month/year) 02/03/1999
International Patent Classification (IPC) or both national classification and IPC E21B33/08		
Applicant WEATHERFORD/LAMB, INC. et al.		

- This written opinion is the first drawn up by this International Preliminary Examining Authority.
- This opinion contains indications relating to the following items:
 - ☒ Basis of the opinion
 - ☐ Priority
 - ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Lack of unity of invention
 - ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Certain document cited
 - ☒ Certain defects in the international application
 - ☒ Certain observations on the international application
- The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
- The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 02/07/2001.

Name and mailing address of the International preliminary examining authority:



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Authorized officer / Examiner

Str mmen, H

Formalities officer (incl. extension of time limits)

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I. Basis of the opinion

1. This opinion has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".*):

Description, pages:

1-12 as originally filed

Claims, No.:

1-27 as originally filed

Drawings, sheets:

1/11-11/11 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
 - ☐ the language of publication of the international application (under Rule 48.3(b)).
 - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority in written form.
 - ☐ furnished subsequently to this Authority in computer readable form.
 - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
4. The amendments have resulted in the cancellation of:
- ☐ the description, pages:
 - ☐ the claims, Nos.:

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☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N) Claims 1-27 Yes

Inventive step (IS) Claims 1-27 No

Industrial applicability (IA) Claims 1-27 Yes

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

Reference is made to the following documents:

D1: US-A-5 662 181

D2: US-A-3 638 721

D3: US-A-4 626 135

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- V-1 D1, which is considered the closest prior art, describes an apparatus comprising:
- an element (6)
 - a housing (8) disposed on the top of said element (6), said housing having a first housing opening (9) and an internal diameter, said first housing opening being sized to discharge drilling fluid received from said element (6); a bearing assembly having an inner member (43) and an outer member (42) and being removably positioned with said housing (claim 1, l. 5), said inner member being rotatable relative to said outer member (claim 1, l. 8-12) and having a passage through which the rotatable tubular may extend (claim 1, l. 6-7); a seal movable with said inner member to sealably engage the tubular (claim 1, l. 18-22); a quick disconnect member to disconnect said bearing assembly from said housing (col. 6, l. 58-66).

The apparatus according to claim 1 differs from said known riser in so much:

- a) the apparatus is for use with a structure for drilling in the floor of an ocean using a rotatable tubular and drilling fluid when the structure is floating at a surface of the ocean;
- b) the "element" is a riser fixable relative to the floor of the ocean, a portion of said riser extendable between the floor of the ocean and the surface of the ocean, said riser having a top, bottom and an internal diameter;
- c) the floating structure is movable independently of said bearing assembly when said tubular is sealed by said seal and the tubular is rotating.

The apparatus according to claim 1 is therefore new and the claim meets the novelty requirement of Art. 33(2) PCT.

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- V-2 D1 does not specify whether the blow-out preventer is to be used onshore or offshore, and therefore it can be expected that it is substantially suitable for both applications. No inventive step is involved in adapting it to an offshore use.
- However, as soon as the device of D1 is used offshore the "element" will be a riser as specified in the distinguishing feature b), and also the other use features a) and c) will be automatically present.
- The distinguishing features a), b) and c) do not involve therefore an inventive step and claim 1 does not meet the inventive step requirement of Art. 33(3) PCT.
- V-3 Standard flange dimensions are normally used in the industry to connect pipes. The flanges are welded to the pipes to be connected and then the connection is made up by bolting flange to flange with a seal ring in between the flange faces. D1 discloses a flange (see fig. 3, item 6) which obviously is designed to be connected to a compatible flange of a further element, and it would be most surprising if the internal diameters of the further element would be different from the one of the flange. As soon as the further element is a riser, the riser would have therefore the same internal diameter of housing 8 of D1.
- Therefore, claim 2 does not involve an inventive step (Art. 33(3) PCT).
- V-4 Furthermore, D1 discloses the subject-matter of claims 3 (see col. 5, l. 63-67) and 5 (see col. 3, l. 46-48), and therefore it would be obvious to implement said features together with the remaining features of D1. Therefore, the subject-matter of claims 3 and 5 does not involve an inventive step (Art. 33(3) PCT).
- V-5 The "rupture disk" of claim 4 is merely functioning as standard valve set to open at a certain pressure. The feature of having a destructive device which can only be used once is not considered to involve an inventive step (Art. 33(3) PCT).
- V-6 The additional feature specified in claim 6 is routinely used in the field, see for example D2, col. 2. 5-8. As it is apparent that the advantages of said solution would be present also applied in combination with the device of claim 1, claim 6 does not meet the inventive step requirement of Art. 33(3)

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- V-7 Based on the same argumentation as used under section V-1, V-2 and V-6, also the subject-matter of claim 7 does not meet the inventive step requirement of Art. 33(3) PCT.
- V-8 The objections raised to claim 1 and 7 apply also to independent method claims 19 and 24, such that the subject-matter of said claims does not involve an inventive step contrary to the requirements of Art. 33(3) PCT.
- V-9 The features of the following claims are known from either D2 or D3. It would therefore be obvious to combine said features with D1 in order to solve the problem posed:

Claim 8: see D3, col. 3, l. 27-28.
Claim 9-11: see D3, col. 1, l. 49-54.
Claims 12-14 see D3, fig 2.
Claim 15: see D3, fig. 2, item 56.
Claims 17-18: see D2, col. 1, l. 14-18.
Claim 22: see D2, fig 2.

Therefore, the above mentioned claims do not involve an inventive step (Art. 33(3) PCT).

- V-10 Claims 16 and 23 are not clear, see section VIII-1 of this Written Opinion. As an inventive step can be seen only in features which, on top of being not obvious, solve a technical problem, the mere statement of an objective cannot be considered as involving an inventive step. Claims 16 and 23 therefore do not meet the inventive step requirement of Art. 33(3) PCT.
- V-11 With respect to method claims 20 and 21, the same argumentation applies as used for claims 6 and 2, respectively.
Therefore, claims 20 and 21 do not involve an inventive step (Art. 33(3) PCT).
- V-12 With respect to method claims 25-27, the same argumentation applies as used for claims 17-18, respectively.

Therefore, claims 25-27 do not involve an inventive step (Art. 33(3) PCT).

Re Item VII

Certain defects in the international application

- VII-1 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- VII-2 The Independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- VII-3 To satisfy the conciseness requirement of Article 6 PCT, the present set of claims should include only the minimum necessary number of independent claims in any one category. Said requirement is not satisfied by independent claims 1, 7, 19 and 24, as in the present case, it is considered appropriate to use only one independent claim in any one category.
- VII-4 It appears that claim 20 should refer back to claim 19 and not claim 21.

Re Item VIII

Certain observations on the international application

- VIII-1 Since it is not clear how vertical movements are compensated for when the slip joint in claims 16 and 23 is removed, said claims do not meet the requirements of Art. 6 PCT in that the matter for which protection is sought is not clearly defined. The claims attempt to define the subject-matter in terms of the result to be achieved which merely amounts to a statement of the underlying problem. The technical positive features necessary for achieving this result should be added. See also PCT Guidelines PCT/GL/3 III-4.11.